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KEY FACILITATORS AND BARRIERS TO QUALITY OF LIFE IN RESIDENTIAL AGED CARE: THE ROLE OF DESIGN

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Abstract
Australia is undergoing a critical demographic transition: the population is ageing. By 2050, one in four Australians will be older than 65 years and by 2031, the number of older Australians requiring residential aged care will increase 63%, to 1.4 million (ABS, 2005). In anticipation of this global demographic transition, the World Health Organisation has advocated 'active ageing', identifying health, participation and security as the three key factors that enhance quality of life for people as they age (WHO, 2002). While there is considerable discussion and acceptance of active ageing principles, little is known about the experience of 'active ageing' for older Australians who live in Residential Aged Care Facilities (RACF). This research addresses this knowledge gap by exploring the key facilitators and barriers to quality of life and active ageing in aged care from the perspective of aged care residents (n=12). To do this, the project documented the initial expectations and daily life experience of new residents living in a RACF over a one-year period. Combined with in-depth interviews and surveys, the project utilised Photovoice methodology - where participants used photography to record their lived experiences. The initial findings suggest satisfaction with living in aged care centers around five key themes; resident's mental attitude to living in aged care, forming positive peer and staff relationships, self-determination and maintaining independence, opportunities to participate in interesting activities, and living in a safe and comfortable physical environment. This paper reports on the last of these five key themes, focusing on the role of design in facilitating quality of life, specifically: "living within these walls" – safety, comfort and the physical environment.

Keywords: Productive ageing, PhotoVoice, residential aged care, ageing population, quality of life, design,

Introduction

Australia is undergoing a critical demographic transition: the population is ageing. By 2050, one in four Australians will be older than 65 years (an increase from 13% to 22% of the population). There will be over 50,000 centenarians and the number requiring high-level residential aged care will increase 63%, from 520,000 in 1998 to 1.4 million in 2031 (ABS, 2005). In anticipation of this global demographic transition, the World Health Organisation (WHO) has advocated 'active ageing', identifying health, participation and security as the three key pillars/factors that extend and enhance healthy life expectancy, productivity and quality of life for people as they age (see Figure 1). The WHO advocates a holistic perspective, arguing that multiple aspects of older adults' activities (centered on the key pillars of participation, health and security) intertwine to determine the quality of the ageing experience and that each pillar is essential in achieving and maintaining wellbeing in later life.

A critical ongoing priority is to identify and better understand the specific factors that facilitate older people's health, happiness and quality of life, thus responding to the World Health Organization's (2002) 'active ageing' dictum that *'years have been added to life, we must add life to these years'*. Yet, while there is considerable discussion and acceptance of active ageing principles (participation, health and security) in both the literature and practice, to date little is known about (a) the experience of "active ageing" from the perspective of older Australians who live in, or access services from, a Residential Aged Care Facility (RACF); and (b) the role design plays in facilitating or hindering the transition into and experience of living in aged care.

The experience of residential aged care in Australia

For the Australian aged care industry, responding to and preparing for such significant demographic changes presents many challenges and opportunities. Although most older adults live independently in their own home, population ageing means that there will be an increased demand for aged care and support services – both in the community (e.g., home healthcare, meal delivery, housing modifications) and in residential care (from high level support provided by nursing homes to lower level support in retirement villages). Consequently, there is a focus in the literature on how to efficiently and effectively meet the care needs of increasing numbers of older people. For example, the impact of place attachment on resident health (Heisler, Evans & Moen, 2004), the relationship between positive attitudes and successful early adjustment to living in RACF (Bergland & Kirkevold, 2006; Edwards, Courtney & O'Reilly, 2003; Hjaltadottir & Gustafsdottir, 2007), the effect of changing social interactions on health outcomes (Ball et al., 2000; Bergland and Kirkevold, 2006; Tsai and Tsia, 2008), the association between the activity levels of residents in aged care and health related QoL (Jenkins, Pienta & Horgas, 2002; Voelkl, Fries & Galecki, 1995), and specific resident-centred care initiatives that facilitate physical and emotional health, including nutrition, exercise, falls prevention, and inter-generational activities (e.g., Shura et al, 2011) feature strongly in the literature base. Yet, despite this extensive body of research, the reality is "*insights into daily living in residential care settings are rare... there is limited research outlining what is important to older people who live in residential care settings*" (Timonen & O'Dwyer, 2009, p.597).

What is well-known, however, is that older people, their families, and the wider community typically have negative views about RACF, with the transition to aged care a deeply personal and life changing event impacting significantly on resident's physical, emotional and social experience of life. Living in the unique medicalised environment of RACF means "dramatic changes in physical location, daily routine, social networks, and personal autonomy, as well as residence in an 'accidental community'" (Yamasaki & Sharf, 2011, p.13), with reductions in both privacy and contact with pre-existing social networks. Unfortunately, research by Australian service providers (Fleming, 2001) suggests that one quarter to a half of RACF residents are depressed. The reality, as Leventhal (2008) argues, is that understanding and exceeding expectations in RACF is more complex than other health services, due to the multiple stakeholders and additional intimacies of long-term care, ageing and dying. Clearly, enhancing our understanding of residents' actual daily experiences, and how best to facilitate their "active ageing", is critical.

From compliance to enhancing quality of life

Over the past two decades, just as the experience of ageing has been reconceptualised in more positive terms, so has how daily life in RACF is experienced and conceptualised by

residents, staff and management. For example, fifteen years ago, Fiveash (1997) explored resident's experience of nursing home living in two 80-bed nursing homes in New South Wales through participant observation and interviews with 8 residents. She found residents reported being there against their will and struggled with living with others in a public domain where "staff determine when residents wake, go to sleep, what they eat, and when residents will shower and dress" (p169, 1997). They felt that living with other disabled, older and very sick people was a constant reminder of "their own inevitable decline, leaving them with no choice but to picture themself chairbound, confused, sick or dying" (p169). Similarly, when Nay (1995) qualitatively explored Australian nursing home residents' perceptions of relocation, the identified themes were (in general) about how negative the experience was: there was no choice, everything went, devalued self, and end of the line.

More recent studies exploring daily life in RACF have tended to focus much more on identifying and understanding the predictors of quality of life (QoL) for residents. In a recent systematic review of qualitative studies that explored the factors affecting good QoL in care homes, Bradshaw, Playford and Riaza (2012) identified that resident's positive outlook was typically predicted by four key factors: acceptance and adaption to their living situation; 'connectedness' with others (with peer residents and staff); 'homelike' environment (own room and bathroom, a meaningful daily life activities); and carers displaying 'caring practices' (competence, caring attitude and time). Bradshaw et al. (2012) concluded that good QoL in RACF was determined by both an "understanding of the residents' attitudes towards living there, and how factors within the care home impact upon their attitude" (p439).

The relationship between acceptance and positive adaption was also explored by Bergland and Kirkevold (2006), who observed and interviewed 26 residents in two Norwegian nursing homes, focusing on understanding and predicting residents' experiences of 'thriving' (best defined as an emotional state and process of growth and development). Residents current feelings and perceptions of thriving were based on *new* expectations to do with their age and stage in life, within the constraints of RACF; residents who could not "redefine thriving, seemed unable to thrive in their nursing home situation" (p685). Importantly, Bergland and Kirkevold found the most critical factors that predicted thriving in aged care were residents' mental attitude towards living in RACF and the quality of the care and caregivers, with qualities in the physical environment also a key factor.

Quality of life and the physical environment of RACF

An increasing number of studies identify the physical environment as being central in helping to improve the QoL of older adults living in RACF (e.g. Ball, Whittington, Perkins et al., 2000; Bergland & Kirkevold, 2006; Cooney, Murphy & O'Shea, 2009). The importance of "attractive, clean, spacious and homelike surroundings" (Bergland & Kirkevold, 2006:682) and having "one's own room and bathroom, enough storage and a quiet place" (Bradshaw et al, 2012, p435) has been outlined as being central to increasing the resident's sense of privacy belonging and autonomy, which Bergland and Kirkevold (2006) argue is associated with resident happiness and successful adaption.

Providing residents with their own private space to enjoy their personal possessions is seen to be central in enhancing resident happiness, given that so much of daily life in RACF is often communal and shared (Guse & Masesar, 1999). Indeed, Rowles, Oswald and Hunter (2003), argued that permitting residents to have many personal artefacts in their room is vital as they "may serve as a cue to reminiscence, to the resurrection in consciousness of events that

convey a continuing sense of identity" (p173). They describe how memorabilia, pictures and personal furniture not only help residents to re-immerse in places of their past, but that they also help to tell the story of their lives. Focusing on how interior environments (including long-term care facilities) influence older people's QoL, Rowles et al. argue that interior residential spaces are especially important for older adults as they are places of safety and security, "a locale in which he or she feels protected and shielded" (p172). The emphasis on security echoes Rantz et al. (1999). In their qualitative study, they found that a number of specific spatial/environmental inclusions were especially desirable to RACF residents (n=16) and their families (n= 80). These included ensuring that there is adequate space for walking and pushing wheelchairs, good lighting including natural light from windows, working and maintained furniture and equipment, general cleanliness and a focus on noise minimisation. While there was a larger weighting on the opinion of family members in their study, the emphasis on safety does suggest that a physical space that facilitates a sense of environmental confidence is important in RACF.

The importance of providing a safe physical environment for aged care residents is further outlined in a number of design guidelines, standards and principles for Australian RACF (see for example, Hunter & Elkington, 2005; Department of Health and Ageing, 2004). The standards and principles provide a quality assurance system for RACF that broadly addresses building quality, maintenance, prudential regulation and hazards, and the guidelines tend to provide a series of design considerations for those intending on developing or modifying RACF (e.g. energy efficiency, movement activated lighting, safety for wandering, clear pathways, rooms for different functions, etc.). While there is little doubt that the standards and guides provide an important base for safe design of RACF; they do not necessarily tell us what is valued from the perspective of the resident who lives in the space. As Rule (2011) points out in her recent qualitative study - which interviewed four decision-makers (architect, advocate, occupational therapist and a nursing home manager) about what constitutes a sense of place in aged care - the current standards and guidelines tend to focus more on the quantitative and institutional regulations, rather than the qualitative experience of living in context. This is an interesting point, because although both the regulatory frameworks (Australian Standards etc) and qualitative studies (Bradshaw et al., 2012) outline the importance of the physical environment on the QoL of aged care residents, there is little first-hand research with residents about how design impacts the quality of – and enjoyment in – their daily lives. Given that Rule found there was significant " confusion regarding what was important to fostering a sense of place" (p. 27) between the four key decision makers she interviewed; understanding what is of value in the built environment from the perspective of residents becomes particularly clear.

Ageing and PhotoVoice

In the last few years, researchers have just begun to utilise the innovative participatory action research methodology Photovoice. PhotoVoice is a creative medium where people utilise the visual power of photography as a tool for communication and advocacy on a specific topic (e.g., health and safety challenges in the built environment, personal experience of illness, life in and after prison etc). It has three main goals: enable people to record and reflect a community's strengths and challenges; to reach policy makers; and to promote dialogue, knowledge and strategies for changes (Novek et al., 2012; Wang & Burris, 1997). Essentially, participants take photographs and tell the story of why they are important, with these visual images and accompanying narratives providing a unique way to share specific perspectives, spark dialogue and reach decision-makers. This process is often followed by a facilitated

discussion(s) to share and contextualize the meaning of the photographs and a public exhibition to communicate the findings.

To our knowledge, to date, only one study has utilised the photovoice method in an aged care setting. Lewinson et al. (2012) asked 10 RACF residents to take photographs of the characteristics that contributed and interfered with the facility feeling like home, as well as how it could be improved. Interestingly, a key challenge in engaging older adults in this critical dialogue was their fear of reprisal; this sample reported being reluctant to be 'voices of concern' and labelled as troublemakers by staff or other residents. Although the photographic images were not included in the publication, Lewinson et al. reported that residents valued the clean and inviting atmosphere, out-of-home activities and cherished objects (photographs, certificates, chairs, linens etc) that served as memory prompts of their history, family and previous home.

Project rationale and aims

To date, despite a significant body of literature exploring residential aged care, relatively little is known about residents expectations and everyday experiences, specifically if and how their satisfaction and QoL might change over time (i.e., from first admission to after one year's residency). This project addresses this knowledge gap by documenting resident's experience of daily life in an Australian RACF over a one-year period. Combined with in-depth interviews, surveys and the use of Photovoice methodology, the project aims to understand the key facilitators and barriers to quality of life and active ageing in aged care from the perspective of residents. By tracking this cohort across a twelve month period, the overarching aim is to identify specific characteristics – personal (e.g., attitudinal, emotional, spiritual, social, health etc), structural (e.g., environmental, design) and cultural (e.g., management ethos, philosophy of care, caregiver attributes etc) - that enable and support older people to be happy, actively age and have a good quality of life in residential aged care.

Methodology

Case Study Site

This project documents 12 residents living at an RACF located in subtropical Brisbane in Queensland. The complex comprises: high care (40 beds), low care (67 beds), and retirement villas (230 independent living units and serviced apartments), and also provides support services to community-dwelling older Australians.

Participants

Residents were eligible for the study if they were: age 65 and older; not diagnosed with dementia; and assessed as cognitively capable of actively participating in the research by the head nurse, in terms of being able to understand and answer questions. During the initial data collection phase of the project, twelve residents participated, with Table 1 illustrating their socio-demographic characteristics [1]. At this juncture, we should emphasise that all participants were low care residents; unlike high-care (where 24 hour nursing is required), low care means that they could walk or move about on their own, but might need help with personal care (such as help with dressing, eating, bathing etc) and support services (cleaning, laundry and meals), as well as some allied health support (nursing/physiotherapy).

[1] Three additional residents have participated in the project since this time. While their responses do appear to support the initial findings presented, their responses are not included in these initial findings.

Procedure
The university ethics committee approved the project, with all residents providing informed consent. Participants were not compensated financially or otherwise for their involvement in the project.

Participation involves:

- A face-to-face (1-2hr duration) interview at two time points, approximately twelve months apart (*Time 1* and *Time 2* interview). Participants completed a suite of quantitative measures, assessing why they moved to residential care, their experiences and evaluations (of the room, complex, social interactions, activities and staff) and general quality of life (see resident satisfaction in residential aged care, Chou et al., 2001; Care-Receiver Efficacy Scale–Short-Form Scale, Ma et al., 2012; well-being, Meeks et al., 2012). This quantitative survey was combined with an in-depth qualitative interview, expanding on and exploring resident's views on these issues.
- Bi-Monthly '*Celebrating My Life'* (CML) activity facilitated by one of two staff members, who acted as key contacts (KC). The activity involved completing a brief online Quality of Life survey and PhotoVoice activity, where KC's assisted participants to select and describe photographs that best reflected that month's high and lowlights. Photographs could be of themselves, rooms, dinner tables, activities, neighbourhoods, gardens, streets etc. Through photographic expression, residents shared the reality of life in RACF.
- A photographic exhibition – an internal RACF and community hosted exhibition will display a selection of the photographs, providing unique insight into resident's daily lives and facilitating dialogue with the wider community about the experience of ageing in aged care.

This article reports on findings from *Time 1* interview and initial results from PhotoVoice and CML activity.

PhotoVoice Technique
Each month, participants were instructed to list the things that have made them happy and/or not happy that month, and then to take (or review) photos that best represented their month. These images were uploaded (with explanatory captions) to a database. After 12 months of data collection, the images were all printed and in a focus group setting, residents selected a shortlist for an exhibition illustrating daily life in aged care.

Qualitative Data Analysis
The three authors conducted the interviews, with the audio-recorded interviews transcribed verbatim. Each then read through all of the transcripts to obtain a general sense of the data and conducted a manual thematic analysis to identify key categories, themes and patterns. Three iterative steps were followed (Liamputtong & Ezzy, 2005). First, transcripts were read and re-read multiple times to initially identify the key overarching themes. Second, coding was done manually, with common and contrasting concepts identified, highlighted and grouped. Third, themes were identified, categorised, reviewed, interpreted and named (with sub-categories created as needed) to create a comprehensive picture of life in residential aged care from the perspective of residents. The focus was on "theoretical completeness – accounting for as much variation in a pattern of behaviour with as few concepts as possible, thereby maximizing parsimony and scope" (Strauss, 1987, p35). A similar analysis process was followed with resident's photographs (Hergenrather et al., 2009), with the narrative and visual data (words and pictures) combined where appropriate. Finally, to ensure the accuracy

of the thematic data analysis, we followed a process of 'member checking' with interview participants asked to comment on and confirm the accuracy of the themes.

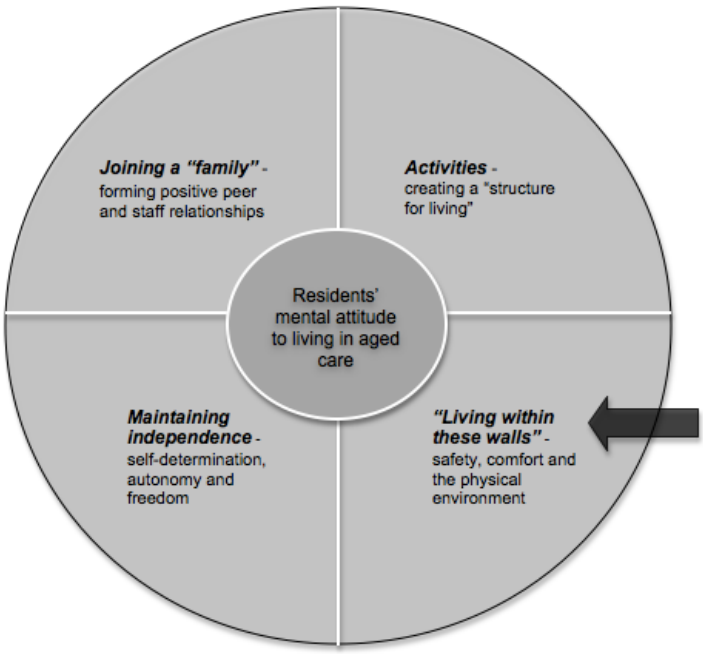
Table 1: Socio-demographic profile of participating residents (n=11)

Demographic Information		***Frequency/ Average***
Age (years)	Overall	72 years (range 66-90)
Sex	Female	10
	Male	2
Marital Status	Married	2
	Widowed	6
	Divorced	4
Education	Primary school only	4
	Some high school	4
	Completed high school	3
	Trade	1
Children	Yes	2.41 (range 0-5)
Grandchildren	Yes	4.33 (range 0-10)

Results

As outlined below in Figure 1, the initial results suggest there are five key themes that contribute to good QoL and active ageing for resident's living in residential aged care.

Figure 2: Result Themes



The results presented in this paper will focus on one theme, which documents the role of design in facilitating quality of life and active ageing: "living within these walls" – safety, comfort and the physical environment. In the quotations, males are coded M and females as F, followed by a number denoting the specific quotations from the 12 interviews.

Theme: "Living within these walls" – safety, comfort and the physical environment

This theme focuses on the role of design in aged care. Residents emphasised the importance of a pleasant physical environment, with more than half of the residents interviewed indicating strong attachments to the interior (their individual rooms) and/or exterior (gardens etc) spaces of the home.

Individual room and personalisation

Residents described feeling pleased at being able to bring in personal furniture and electronics (bed, dresser, chairs, fridges, TV etc) into the RACF. This respect of individuality helped to deinstitutionalise the RACF, thereby boosting adaption and feelings of positivity. As one resident explained: *"I'm very satisfied (with my room), I got me own furniture so why wouldn't I be...It's just like my own home, really! Only I don't have to do no work!*" (F2). Of course, having to downsize belongings into a single room did present difficulties for some residents: "It *was difficult - Having to discard so many of my previous memories – old letters, birthday and Christmas cards...but as someone said to me "never cry over anything that can't cry back", so I am trying valiantly to follow her advice*" (F8).

While most residents reported being generally happy with their room and bathroom, many still had some suggestions as to how their comfort might be enhanced, primarily in terms of making the space much larger: "*I feel my room is unhappily closing in on me. It's far too small, I had to give my friend most of my things. The basin is too low, the cupboard above juts out in the wrong place and the shower curtain can't close*" (F3). Interestingly, even those that made suggestions for improvement were still quick to be clear about the benefits of the physical space that surrounds them, "*.you're lucky to be here I like where (my room) is spaced...it's nice and airy here"* (F5).

Common spaces, activities and connection with environment

On the whole, residents were satisfied with common rooms and reported being able to maneuver around the common spaces without difficulty. Interestingly, the residents tended to associate positive descriptions more with the activities that were held in the space, rather than they physicality of the space. For example in response to the question, "*do you like the main lounge area?",* F4 responded "*yeah (quietly)…. that's where we have our concerts (energised voice)*". This linking of space to activity was also shown in a number of resident PhotoVoice images, where the importance of having the correct furniture and adequate room in order for residents to enjoy a range of activities in the space was apparent (see figure 3 &4).

Figures 3 & 4. Resident PhotoVoice images showing activities they enjoyed watching and engaging in, held at the RACF.

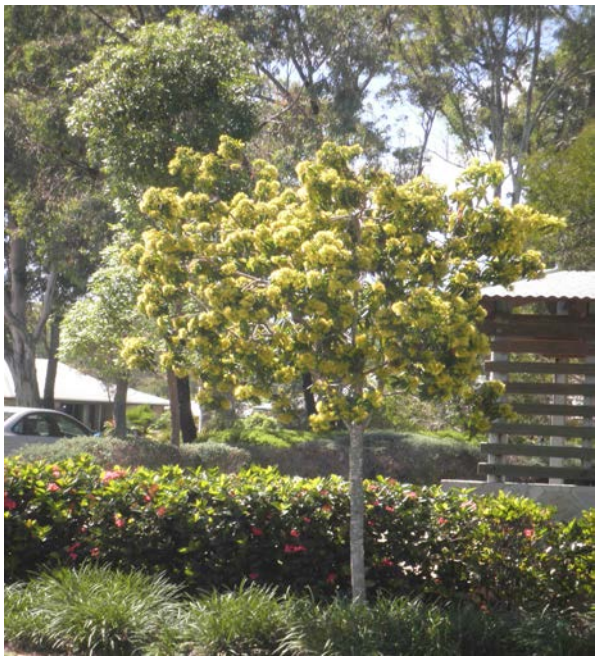
Although they were not overly descriptive in their response to questions about common interior spaces (possibly because they were generally satisfied), a number of residents commented on enjoying being on ground level and having easy access to pleasant outside areas. As detailed below (see figures, 5, 6, 7 & 8), the exterior environment of the RACF featured heavily in the PhotoVoice images provided by the residents. For example, residents took photographs of feature trees, frangipani flowers, the resident swimming pool and pots of flowers as a means of describing what made them feel happy. In addition to impacting on how residents feel, it was evident that having an accessible exterior environment helped to facilitate health and fitness activities for the residents. For example as F6 and F2 said, *"…every morning the girls take us, on my walker, and all of us for a walk all around, as far as we can go, like, you know, right around and then we come back…then we go out to exercises that Roger gives us, you know, to get our body and muscles working*" (F6), *"I go for any walks that (name removed) takes us on of a morning as our guide"* (F2)

Table 2: The physical environment: room and common spaces	Not satisfied (%)	Neutral (%)	Satisfied (%)
Thinking about the home as a whole, how would you rate the size of the room?	27.3	9.1	63.7
Thinking about your room, how would you rate the amount of storage space?	45.5	0	54.6
Thinking about your room, how would you rate the bathroom?	18.2	18.2	63.7
Thinking about your room, how would you rate our room overall?	18.2	9.1	72.8
Thinking about the home as a whole, how would you rate its design, for being able to get around easily?	9.1	9.1	81.9
Thinking about the home as a whole, how would you rate the lounge area?	9.1	18.2	63.7
Thinking about the home as a whole, how would you rate the dining room?	9.1	9.1	81.9
Thinking about the home as a whole, how would you rate the outdoor areas?	0	9.1	90.9

As detailed in the table above, 72.8% were satisfied with their room overall. The residents were clearly satisfied with the size of the room and the bathroom, however, 45.5% would like more storage space. In terms of the common areas, the residents were overwhelmingly

positive about the dining room, the outdoor areas and the ability to maneuver around the spaces easily.

Figure 5,6,7 & 8: Resident PhotoVoice: Picture taken by resident showing one of their favourite things during the month – clockwise from left - golden panda tree in grounds, resident swimming pool, potted geranium on balcony and frangipani flowers.



The physical environment: the food

As can be seen in Table 3, an important aspect of feeling satisfaction with the environment was the food, which was typically described in positive terms, "*oh we are well and truly well fed…and it keeps getting better all the time*" (F7). On the whole, residents described feeling very satisfied with the variety of food (81.9%), the amount of food (100%) and the meal times, (91%) with comments such as "*the meals are absolutely beautiful*" (F6) and "*it can't be improved*" (M1), typical of most residents. Of course, not all residents were happy with the food, with 27.3% commenting that their food was often cold or not cooked properly, "*it isn't hot*" (F5), "*the meal production…is institutionalised…so tomorrow's lunch will already be on the plate..sort of thing*" (M2). One resident's opinion, "*I have a lot of my meals in here,*

so that might be why they are colder"(F5), is revealing given that the residents who were unhappy with the temperature of their food usually ate in their rooms.

Table 3: Resident's perceptions of physical environment in RACF

Physical environment	"..you couldn't ask for any better…you've got your nice little room" (F6) "We like it here on ground level, everything is so handy….we go for walks to the bird avery… and in the other direction there is a goldfish swimming pool…we go for walks there" (F4) "I'm happy with the dining room…nothing the matter with it at all…nothing the matter with the place at all…I've got no complaints" (F7)
Food	"Well I'm on a soft diet at the moment. I don't like that very much...now and again I sneak in a salad, and they sort of say that's not really a soft diet, but they still give it to me...you know....there's tomato which is soft" (F4) "I said to the grandson I don't want a fridge because you get enough food here, you don't want to – he said I'm buying you a little fridge so in the hot weather, you might want a nice cold drink or something like that, or something that you (pauses) and I haven't even turned it on yet" (F6) "Oh we are well and truly well fed….and it keeps getting better all the time" (F7)

Table 4: The physical environment: the food	Not satisfied (%)	Neutral (%)	Satisfied (%)
Thinking about food and meals, how would you rate the variety of food?	18.2	0	81.9
Thinking about food and meals, how would you rate the amount of food?	0	0	100
Thinking about food and meals, how would you rate the temperature of food?	27.3	9.1	63.7
Thinking about food and meals, how would you rate the meal times?	0	9.1	91.0

Figure 9: Resident PhotoVoice: -picture taken by resident showing one of their favourite things during the month - fruit.

Discussion

The purpose of this study was to expand current understanding of daily life in RACF and to better understand what facilitates resident's quality of life, providing new insight from in-depth interviews and the Photovoice approach. The findings highlighted how moving into a RACF was a significant life changing event for older people, who managed the experience and the reality of adapting to their new daily life in contrasting ways. Consistent with past studies (e.g., Bradshaw et al., 2012), we found that in addition to mental attitude/acceptance, four key factors contributed to how residents evaluated and experienced living in aged care: positive peer and staff relationships, engaging in meaningful activities, opportunities to maintain independence, and living in a comfortable and safe physical environment. In this paper, we focused on the role design plays in facilitating – or hindering – the transition into and experience of living in aged care.

Both current literature (see for example, Ball, Whittington, Perkins et al., 2000; Bergland & Kirkevold, 2006; Cooney, Murphy & O'Shea, 2009) and existing regulatory frameworks (e.g. Hunter & Elkington, 2005; Department of Health and Ageing, 2004) outline the importance of the physical environment on the safety and QoL of residents. As outlined by Moore et al. (2011) who reported on the comprehensive environmental audits that they conducted across nine Australian RACF, *"providing a safe and older person friendly environment has potential to result in positive outcomes for residents"*. Yet, despite the literature supporting the position that the physical environment can impact on the QoL of aged care residents, there is little first-hand research with residents about how design impacts the quality of – and enjoyment in – their daily lives. This is especially problematic given the confusion that key stakeholders in aged care have surrounding what best constitutes a sense of 'place' in aged care (Rule, 2011, p.27).

The results of this study emphasise the importance of the physical environment in smoothing the transition from home to care home and facilitating quality of life/active ageing for residents. Consistent with Sheppard (2009) who after interviewing residents, family members and staff across two Australian RACF, concluded that providing a private, single rooms "were not seen as isolating rather as providing perceived control over the personal environment for residents, adding to a sense of well being", we also found that resident's valued quality spaces that offered them the opportunity to retreat - "a locale in which he or she feels protected and shielded" (Rowles et al, 2003, p172). Having a quiet place to retreat was important for those residents who preferred to engage in solo activities. For example as stated by resident (F5), "*see I don't mix very much.. I'm just not that sort of person….I have a lot of my meals in here…I do my book, my crosswords and that*".

From a design perspective, residents were generally very happy with their room and bathroom, although more space would always be preferred. Importantly, the residents valued being able to personalise their room with their own decorative artifacts (photographs, paintings etc.) and their own furniture and electronics. A number of residents took photographs of pictures they had on their wall to show one of the things that made them happy that month. This finding parallels Rowles et al., who argue that by allowing personal artifacts in a room, residents are better able to retain their sense of identity, thereby increasing overall wellbeing.

We found that in addition to having individual space to retreat, residents also highly valued having spaces in which they were able to socialise and engage easily with activities. Residents reported a sense of environmental confidence, with the majority of residents describing their positive daily interactions with a variety of external and internal spaces within the facility. As detailed in the PhotoVoice images (see figures 3, 4, 5 & 6), having flexible and roomy interior spaces that permit easy maneuverability in addition to pleasant exterior environments, residents were able to watch performances, engage in hobbies (e.g. craft), display their own potted plants and easily walk around to enjoy the plants and pathways throughout the facility. The exterior environment was important for facilitating health and fitness activities, with a number of residents commenting on taking part in group and solo walking and fitness activities. Furthermore, having an accessible external area encouraged a sense of autonomy and gave residents an opportunity to engage outside of structured activities, *"I've got to get out…I'll go out and walk. Even if I only go down there and back but I go out (gesturing to footpath and garden outside)"* (F7).

This research, although preliminary, provides important insights into the attitudes, beliefs and experiences of older aged care residents, which may help to inform organisational practice and policy in aged care settings. The resident responses, in addition to their PhotoVoice images, powerfully highlighted their sense of independence and their connection with environment. It highlights how thoughtful design of the indoor and outdoor environments can help enhance the wellbeing, quality of life and active ageing of aged care residents. These findings represent a key starting point for the development of best practice design for the aged care sector. Critically, the rapid ageing of our population and the associated increased pressure on aged care facilities to meet the care needs of older Australians means that it is essential to learn more about what it is to age in context from the people that count the most – the residents.

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References

Australian Bureau of Statistics (ABS). (2005). *Population projections, Australia: 2004-2101 (3222.0). Retrieved from: http://www.abs.gov.au/AUSSTATS/abs@.nsf/3222.0.*

Ball, M. M., Whittington, F. J., Perkins, M., Patterson, V. L., Hollingsworth, C., King, S. V., et al. (2000). Quality of Life in Assisted Living Facilities: Viewpoints of Residents. *Journal of Applied Gerontology, 19*(3), 304-325.

Bergland, A., & Kirkevold, M. (2006). Thriving in nursing homes in Norway: contributing aspects described by residents. *International Journal of Nursing Studies, 43*(6), 681–691.

Bradshaw, S., Playford, D., & Riaza, A. (2012). Living well in care homes: a systematic review of qualitative studies. *Age and Ageing, 41*, 429-440.

Chou, S., Boldy, D. P., & Lee, A. H. (2001). Measuring resident satisfaction in residential aged care. *The Gerontologist, 41*(5), 623-631.

Cooney, A., Murphy, K., & O'Shea, M. (2009). Resident perspectives of the determinants of quality of life in residential care in Ireland. *Journal of Advanced Nursing, 65*(5), 1029-1038.

Department of Health and Ageing. (2004). *Standards and Guidelines for Residential Aged Care Services – Section 1: Introductory Information*. Retrieved from http://www.health.gov.au/internet/publications/publishing.nsf/Content/ageing-manuals-sgr-sgrindex.htm~ageing-manuals-sgr-sgrindex-1.htm

Edwards, H. E., Courtney, M. D., & O'Reilly, M. T. (2003). Involving older people in research to examine quality of life in residential aged care. *Quality in Ageing: Policy, practice and research, 4*(4), 38-43.

Fiveash, B. (1997). The experience of nurshing home life. *iInternational Journal of Nursing Practice, 4*(3), 166-174.

Fleming, R. (2001). *Challenge depression: a manual to help staff identify and reduce depression in aged care facilities*. Sydney: The Hammond Care Group.

Guse, L. W., & Masesar, M. (1999). Quality of life and successful aging in long-term care: perceptions of residents. *Issues in Mental Health Nursing, 20*(6), 527-539.

Heisler, E., Evans, G., & Moen, P. (2008). Health and Social Outcomes of Moving to a Continuing Care Retirement Community. *Journal of Housing For the Elderly, 18*(1), 5-23.

Hergenrather, K. C., Rhodes, S. D., Cowan, C. A., Bardhoshi, G., & Pula, S. (2009). Photovoice as community-based participatory research: a qualitative review. *American Journal of Health Behavior, 33*(6), 686-698.

Hjaltadottir, I., & Gustafsdottir, M. (2007). Quality of life in nursing homes: perception of physically frail elderly residents. *Scandinavian Journal of Caring Science, 21*(1), 48-55.

Hunter and Elkington. (2005). *Design Guidelines for Aged Care Facilities. Retrieved from* http://www.fallssa.com.au/documents/hp/Design_guidelines-aged_care_facilities.pdf

Jenkins, K., Pienta, A., & Horgas, A. (2002). Activity and Health-Related Quality of Life in Continuing Care Retirement Communities. *Research on Aging, 24*(1), 124-149.

Leventhal, L. (2008). The role of understanding customer expectations in aged care. *International Journal of Health Care Quality Assurance, 21*(1), 50-59.

Lewinson, T., Robinson-Dooley, V., & Grant, K. W. (2012). Exploring "home" through residents' lenses: assisted living facility residents identify homelike characteristics using photovoice. *Journal of Gerontological Social Work, 55*(8), 745-756.

Liamputtong, P., & Ezzy, D. (2005). *Qualitative research methods: a health focus.* Melbourne: Oxford University Press.

Ma, L., Green K.E, Cox, E. (2012). Factor Structure Investigation of the Care-Receiver Efficacy Scale – Short Form Longtitudinal Confirmatory Factor Analysis *Research on Aging*. 34(1), 100-107

Meeks, S., Van Hatisma K., Kostiwa, I., & Murrell, S. A. (2012). Positivity and well-being among community-residing elders and nursing home residents: what is the optimal affect balance? *The Journals of Gerontology, Series B, 10*, in press.

Moore, K.J., Hill, K.D., Robinson, A.L., Haines, T.P., Haralambous, B., Nitz, Jennifer C. (2011). The state of physical environments in Australian residential aged care facilities. *Australian health review*. 35 (4). 412-417

Nay, R. (1995). Nursing home residents' perceptions of relocation. *Journal of Clinical Nursing*, *4*(5), 319-325.

Rantz, M., Zwygart-Stauffacher, M., Popejoy, L., Grando, V. T., Mehr, D. R., Hicks, L. L., et al. (1999). Nursing home care quality: a multidimensional theoretical model integrating the views of consumers and providers. *Journal of Nursing Care Quality*, *14*(1), 16-37.

Rowles, G., Oswald, F., & Hunter, E. G. (2003). Interior living environments in old age. *Annual Review of Gerontology and Geriatrics*, *23*, 167-194.

Rule, Emmy-Clare. (2011). The bondage of an imposed visual discourse: understanding the built environment's influence on the 'oldest-old' aged care residents' sense of peace. In *The First International Postgraduate Conference on Engineering, Designing and Developing the Built Environment for Sustainable Wellbeing*, 27 – 29 April, 2011, Queensland University of Technology, Brisbane, Qld. *Retrieved from* http://eprints.qut.edu.au/42442/1/2011009105_Rule_ePrints.pdf

Shura, R., Siders, R. A., & Dannefer, D. (2011). Culture change in long-term care: Participatory action research and the role of the resident. *The Gerontologist*, *51*(2), 212-225.

Sheppard, L.A. (2009). Privacy within Aged Care Facilities. *Internet Journal of Advanced Nursing Practice.* 10(2). 6-6.

Strauss, A. (1987). *Qualitative analysis for social scientists*. Cambridge, UK: Cambridge University Press.

Timonen, V., & O'Dwyer, C. (2009). Living in institutional care: residents' experiences and coping strategies. *Social Work in Health Care*, *48*(6), 597-613.

Tsai, H., & Tsai, Y. (2008). A temporary home to nurture health: lived experiences of older nursing home residents in Taiwan. *Journal of Clinical Nursing*, *17*(14), 1915-1922.

Wang, C., & Burris, M. A. (1997). Photovoice: concept, methodology and use for participatory needs assessment. *Health and Behaviour*, *24*(3), 369-387.

World Health Organization (WHO). (2002). *Active ageing: a policy framework*. Retrieved from http://whqlibdoc.who.int/hq/2002/WHO_NMH_NPH_02.8.pdf.

Yamasaki, J., & Sharf, B. F. (2011). Opting out while fitting in: How residents make sense of assisted living and cope with community life. *Journal of Aging Studies, 25*(1), 13-21.